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Impact of Liquidity, Efficiency and Solvency on Profitability of Select Banks

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Abstract

'Liquidity' is the capability of a business to fulfil its short-term maturing obligations within one year, 'Efficiency' shows refers tocapacity of a firm to turn resources into revenue, 'Solvency' shows ability of a business to pay its bills in the long term and 'Profitability' displays the capability of a business to earn profits with respect to investments. So, all these variables show performance of a business in different areas. Previous papers show that these variables are interrelated and if one variable increases or decreases, it impacts the one or the other. But does liquidity, efficiency and solvency have an influence on profitability of Banks? So, the current study tries to examinethe impact of these variables on profitability of select Banks in Indian Banking Industry. Four leading Banks were considered for the study, two from private sector and two from public sector based on their market capitalization. The results of the study shows that liquidity and debt equity ratio had a negative impact on profitability of select banks.

Key words*:Liquidity, Profitability, Efficiency and Profitability, Impact Analysis, Indian Banking sector.*

Introduction:

Till 2019 Indian banking sector consist of 21 private banking institutions, 27 public banks, 56 regional rural banking institutions, 1,562 urban cooperative banking institutions, 94,384 rural cooperative banks and 49 foreign banks, apart fromcooperative credit institutions but there was a major initiative from the government to merge many public sector banks in order to reduce costs, to gain efficiency, to achieve economies of scales, enlarging customer base and

market coverage. The total credit given by commercial banks in India surged to Rs 93,751.17[1] billion and the deposits of banks grew to Rs 120,818.92 billion as of Q3 FY19. But the non-performing assets are piling up and the major part of which belongs to public sector banks. Therefore Indian banks are nowaiming on implementingcombined approach to risk management. Indian Banks have already encompassed the worldwide banking regulation accord of the Basel II, and mainstream banking institutes have already met capital requirements of Basel III, which was having a deadline of March 31, 2019.

RBI (Reserve Bank of India)the central bank of India has recommended to set up PCR (Public Credit Registry) ageneral database of credit information which will beaccessible to all stakeholders, which will make it easy for the banks to evaluate the creditor worthiness. The important Insolvency and Bankruptcy Code (Amendment) Ordinance, 2017 Bill got government nod and this is expected to reinforce the banking sector.

There is upsurge in the income of rural population, which will increase the he need for banking institutes and financial services in rural areas of our country and therefore drive the growth of Indian banking sector. As of September 2018, DFS (Department of Financial Services), Ministry of Finance and the National Informatics Centre (NIC) launched Jan Dhan Darshak as a part of financial inclusion initiative. It is a mobile based application which helps people to locate financial service providers in India.The digital disbursements revolution will trigger enormous changes in the way credit is distributed in India. Debit cards have drasticallysubstituted credit cards as the favored payment mode in India, after demonetization. Debit cards reaped a share of 87.14 per cent of the total card spending.[2]

Significance of the study

Profitability is the capability of a business to earn profits from the investments. No business can survive for a significant amount of time without making a profit.[3] A firm which is not making profits cannot survive for a longer time. Liquidity is very significant when it comes to banks, because Liquidity risk is the existing and forthcoming risk arising from a bank's inability to meet its financial commitments when they come due. Efficiency shows the capacity of a firm to earn using its assets and Solvency shows the ability of a business to meet long term obligations. All these variables are interconnected as per the previous studies. So, if a bank invests more resources into liquid assets it will end up earning less profits and if it is not functioning efficiently it will have severe implications on its survival. The present study tries to analyze the impact of Liquidity, Efficiency and Solvency on Profitability of banks, so that every bank can manage these variables well to avoid losing on their profits.

[1]https://www.ibef.org/industry/banking-presentation
[2]*Reserve Bank of India*
[3]***https://www.investopedia.com/ask/answers/020415/what-more-important-business-profitability-or-growth.asp***

Review of Literature:

The existence of a business depends on its liquidity. Its long-term survival, growth and expansion depend on profitability therefore, both are important for any company (Owolabi et al.). There is a substantial positive association between liquidity and profitability ratios (Njoroge Muiruri, J., Khan, R., & Ali, M., and Waleed, A.)and increase in liquidity will lead to increase in return on assets but the banks should try to keep equilibrium between liquidity and profitability (Ibrahim, S.). Therefore a bank has to have good liquidity which is imperative to get good profits but there should not be excess investment made in current assets to increase liquidity instead a bank should try to keep balance among liquidity and profitability. But there was not substantial relationship found among liquidity and earnings per share (Waleed, A.), which means liquidity will not have impact of EPS.In another attempt there was a substantialassociation found between liquidity and profitability but whenROE (Return on Equity) and ROI (Return on Investment) was used as substitute for profitability, the association became statistically insignificant (Maliket al.). ROA (Return on Assets), RONW (Return on Net worth), DTR (Debtors Turnover Ratio) and GPR (Gross Profit Margin) are the elements which influence dividend payment (Krishnamoorthi, M.), these ratios measure profitability and if a business has performed well in terms of profitability ratios it will impact its dividend policy. These papers have found there is animportantassociationamong liquidity and profitability in banking sector. But there are few studies which could not find any substantialassociationamong liquidity and profitability (Nayeem et al.). This study was conducted on private commercial banking institutes listed in Bangladesh. Even there was a negative association found among liquidity and profitability in banking sector (Owolabi et al.) and positive relation found in non-banking companies. Which means if liquidity increases in banking sector, there will be decrease in profitability but in non-baking companies increase in liquidity will have a corresponding increase in profitability.

Most of these studies were conducted for a time period of more than five years and the most commonly used ratios were current ratio, quick ratio for liquidity, Return on net worth for profitability so, we will be using same ratios for measuring liquidity and profitability performance. But most of the studies on liquidity and profitability have just focussed on liquidity and profitability trade-off and this studies will focus on impact of liquidity, efficiency and solvency on profitability of Indian banking institutes because it is not just liquidity which measures the whole performance of a company but the efficacy with which a company performs and how good is a bank in meeting its long term obligations. Therefore the research question is ‘is there an impact of liquidity, efficiency and solvency on profitability in Indian banking sector? To answer this we formulate our hypothesis ‘there is no significant impact of liquidity, efficiency and solvency on profitability. And this will be tested for all the selected Indian banking companies for the study.

Research Gap

Most of the studies carried out on effect of liquidity on profitability were mainly conducted in non-banking companies and there are very limited studies which have included efficiency and solvency for the impact analysis, because efficiency shows the capability of a firm to use its assets in earning income, but does it have an impact on profitability? Similarly impact of solvency on profitability will also have to be analysed. This study will analyse the impact of these three variables (Liquidity, Efficiency and Solvency) on profitability.

Objective of the study

1. To analyse the liquidity and profitability performance of select banks.
2. To assess the impact of liquidity, efficiency and solvency on profitability.
3.

Methodology

The study uses secondary data which is extracted from the annual reports of the selected Banks. The top leading banks were selected for the study two banks from public sector and two banks from private sector, these banks are SBI, HDFC Bank, ICICI Bank and PNB. The ratios used in the study are Current Ratio (CR), Quick ratio (QR), Asset Turnover Ratio (ATR), Loans Turnover Ratio (LTR), Debt Equity Ratio (DE) and Return on Net worth(RONW). Thestudy is conducted for the time period of five years i.e. from 2015-2019. The impact analysis was done usingSPSS 24. The simple linear regression analysis was used to assess the impact of CR, QR, ATR, LTR and DE on RONW.

Data Analysis

Ratios of selected banks calculated from the annual reports of the banks

Bank\Year	Ratios	2019	2018	2017	2016	2015
SBI	Current Ratio	0.08	0.07	0.07	0.06	0.03
	Quick Ratio	13.83	11.94	10.89	11.02	13.81
	Asset Turnover	0.08	0.07	0.08	0.08	0.09
	Loans Turnover	0.13	0.12	0.12	0.12	0.12
	Debt Equity	15.79	15.08	14.24	13.87	13.34
	Return on Net worth	-3.37	6.69	6.89	10.20	9.20
	Current Ratio	0.04	0.06	0.07	0.04	0.06
	Quick Ratio	17.48	11.19	14.51	12.69	8.55

HDFC	Asset Turnover	0.08	0.09	0.09	0.09	0.09
	Loans Turnover	0.13	0.14	0.15	0.15	0.15
	Debt Equity	8.58	8.02	8.25	8.00	9.36
	Return on Net worth	16.45	16.26	16.91	16.47	19.50
ICCI	Current Ratio	0.12	0.12	0.13	0.06	0.09
	Quick Ratio	20.44	16.31	14.97	13.81	11.31
	Asset Turnover	0.07	0.08	0.08	0.08	0.08
	Loans Turnover	0.11	0.12	0.13	0.14	0.14
	Debt Equity	7.28	6.58	6.86	6.64	6.65
	Return on Net worth	6.63	10.11	11.19	13.89	13.40
PNB	Current Ratio	0.05	0.03	0.03	0.02	0.02
	Quick Ratio	22.72	28.98	28.09	24.23	25.19
	Asset Turnover	0.07	0.07	0.08	0.08	0.09
	Loans Turnover	0.11	0.11	0.12	0.13	0.13
	Debt Equity	18.80	17.39	17.28	14.51	14.48
	Return on Net worth	-32.85	3.47	-11.20	8.12	9.69

Source: Data extracted from Annual reports of Banks

The current ratio of SBI was below the standard of 2:1 for all the years of study, where as in terms of quick ratio, bank has performed very well. The bank has shown a good performance in terms of profitability. The current ratio of HDFC bank was below the standard for all the years of study but its quick ratio has been above standard, which shows bank has a better liquidity. The profitability performance of the bank measured by return on net worth has been very impressive and best among the select banks. The current ratio of ICICI bank was below the standard of 2:1 for all the years of study, where as banks quick ratio has been above standard, which means bank has performed well in terms of liquidity. The profitability performance of ICICI bank has shown a decreasing trend in terms of return on net worth from 2014 to 2018. The current ratio of PNB was below the standard for all the years of study and lowest among the selected banks. The bank has shown highest quick ratios for all the years, which means more idle funds. The bank has not

performed well in terms of profitability, the return on net worth has shown a negative ratio for 2016 and 2018, which shows banks performance has not been good.

Impact of Liquidity, Efficiency and Solvency on Profitability

The predictor variables are, Current Ratio, Quick Ratio, Asset Turnover Ratio, Loans Turnover Ratio and dependent variable is Return on Networth.

Descriptive Statistics			
	Mean	**Std. Deviation**	**N**
Return on Net worth	7.3825	11.90975	20
Current Ratio	.0625	.03275	20
Quick Ratio	16.5980	6.17044	20
Asset Turnover	.0810	.00718	20
Loan Turnover	.1285	.01309	20
Debt Equity	11.5500	4.26570	20

The above table shows the descriptive values of different ratios.

Model Summary									
					Change Statistics				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**R Square Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
1	**0.823**	**.677**	**.562**	**7.87940**	**.677**	**5.882**	**5**	**14**	**.004**

a. Predictors: (Constant), Debt Equity, Asset Turnover, Quick Ratio, Current Ratio, Loan Turnover

b. Dependent Variable: Return on Net worth

The above table is the output of SPSS, which shows the model summary and it includes the adjusted R Square, the impact of predictor variables on the dependent variable.

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	**1825.811**	**5**	**365.162**	**5.882**	**.004**
	Residual	**869.188**	**14**	**62.085**		
	Total	**2694.999**	**19**			

a. Dependent Variable: Return on Net worth

b. Predictors: (Constant), Debt Equity, Asset Turnover, Quick Ratio, Current Ratio, Loan Turnover

The above ANOVA table of SPSS output shows that there is a significant impact of predictor variables on dependent variable, because the p-value is 0.004, which is less than 0.05, hence there is significant impact.

Coefficients[a]

Model		95.0% Confidence Interval for B		Correlations		
		Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	-62.497	145.147			
	Current Ratio	-343.924	60.373	.131	-.373	-.228
	Quick Ratio	-1.341	.378	-.516	-.306	-.182
	Asset Turnover	-650.433	1113.783	.550	.149	.085
	Loan Turnover	-631.431	477.799	.625	-.079	-.045
	Debt Equity	-3.867	-.632	-.715	-.623	-.453

a. Dependent Variable: Return on Networth

The coefficients table above shows that there is a negative impact of Quick ratio and Debt equity ratio on Return on Networth**.**

Findings and Conclusion

From the study it was found that SBI bank has not shown a good performance in terms of current ratio but in terms of quick ratios it has performed well which is another measure of liquidity and the bank has also performed well in terms of profits. The current ratio of HDFC bank was below the standard for all the years of study but its quick ratio has been above standard, which shows bank has a better liquidity. The profitability performance of the bank measured by return on net worth has been very impressive and best among the select banks.

The current ratio of ICICI bank was below the standard of 2:1 for all the years of study, where as banks quick ratio has been above standard, which means bank has performed well in terms of liquidity. The profitability performance of ICICI bank has shown a decreasing trend in terms of return on net worth from 2014 to 2018, which should be a sign of worry for the bank.

The current ratio of PNB was below the standard for all the years of study and lowest among the selected banks. The bank has shown highest quick ratios for all the years, which means more idle funds. The bank has not performed well in terms of profitability, the return on net worth has shown a negative ratio for 2017 and 2019, which shows banks performance has not been good. The reason for decrease in profitability can be more investment in quick assets, which do not give returns.

The study also found that liquidity, efficiency and solvency have a significant impact on profitability, because the p-value is 0.004, which is lower than the common alpha of 0.05, therefore Return on Net Worth is significantly impacted by Current Ratio, Quick Ratio, Asset Turnover Ratio and Loans Turnover Ratio. It was found that liquidity had a negative impact on profitability of select banks, therefore if liquidity increases, there will be a decrease in profitability.The study also found that solvency had a negative impact on profitability of select banks.

Conclusion

The study impact of liquidity, efficiency and solvency on profitability was conducted on selected Indian banks for a period of five years and selected ratios were used for the study. To assess the impact regression analysis was used in SPSS 24. The study found a significant impact of these variables on profitability, but liquidity and debt equity ratio had a negative impact on profitability, therefore banks should focus on maintaining a moderate level of liquidity so that it does not impact profitability.

Further studies may be carried out by selecting more number of banks and with more variables in order to get more insights as this study is limited to selected banks in Indian Banking Industry.

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